

GROUP 3. PERFORMANCE EVALUATION AND ASSESSMENT

Chairman, Captain Al Frink

LOFT provides a unique new learning experience and an opportunity to look at aspects of performance other types of training have not provided. Areas such as crew coordination, resource management, leadership, and so forth, can be readily evaluated in such a format. While individual performance is of the utmost importance, crew performance deserves equal emphasis. Therefore, we feel that these areas should be carefully observed by the instructors as an area for discussion in the same way that individual performance is observed.

There is an apparent conflict inherent in the purpose versus the application of LOFT. To be effective, it must be accepted by the crew members, and administered by the instructors as pure training--learning through experience. To keep open minds, to benefit most from the experience, both in the doing and in the follow-on discussion, it is essential that it be entered into with a feeling of freedom, openness, and enthusiasm. Reserve or defensiveness because of concern for "failure" must not inhibit participation.

Yet, operators are responsive to safety concerns. They are charged with the responsibility of continuing training for those who require it. Thus, there is no such thing as a "no jeopardy" training exercise. Yet, it is essential to create that atmosphere.

To a considerable extent, this conflict can be offset by the manner in which the instructor sets the scene during the pre-flight briefing. He should emphasize:

- o it is a pure learning experience;
- o it is a new training concept designed to accent crew command, coordination, communication, and full resource management;
- o he should emphasize the instructor's role, that he will not interfere regardless of developments;
- o that apparent mistakes may be made, but the crew should carry on--there is no one book solution to a LOFT exercise;
- o that there will be an opportunity for a full self-analysis during the debriefing;

- o and that, he himself, will take notes and assist in the debriefing.

To a certain extent, the instructors may have to be trained in areas such as resource management themselves, so that they are more closely attuned to those issues. However, at present, these standards are difficult to set and will hopefully evolve as more and more experience is gained with LOFT and resource management training.

The instructor, because of the nature of LOFT, fulfills a very different role than in more traditional types of training. He is not an instructor in the traditional sense. For example, realism considerations dictate that the instructor not intervene or intrude in any way into the LOFT scenario. Thus, for purposes of the debriefing, it is crucial that the instructor serve primarily as a moderator.

Instructors must have time to observe performance adequately. They should make detailed notes of observations made during LOFT so that they can guide the debriefing appropriately. LOFT places rigid demands on the instructor, handling ATC, running the scenario, and so forth. Thus, we recommend a tightly-scripted LOFT, and if possible, to have two instructors for three-man crews (one for two-man crews) so that performance can be adequately monitored.

In the experience of companies who have utilized LOFT, it is often the case that crews tend to debrief themselves. Self-criticism and self-examination are almost always present in these situations and perhaps are much more effective than instructor criticism. In fact, crews are often much harder on themselves than the instructor would ever consider being. Thus, the instructor should do everything possible to foster this sort of self-analysis.

In his role as moderator, the instructor can guide the discussion to points that he has noted need attention. Questions about certain procedures, mistakes, and so forth, should be asked whenever possible, and unless absolutely necessary, the instructor should avoid "lectures" about what is right and what is wrong. Obviously, the instructor should avoid the embarrassment of crew members as much as possible. A suggested format for the debriefing would include:

- o a positive general statement opening the discussion;
- o crew members should then be encouraged to discuss the operation as a whole and in part;

- o in referring to his notes, the instructor must assure coverage of all aspects of the flight, not permitting one feature to dominate the debriefing;
- o the instructor should mention (as appropriate) possible alternatives, better ways of accomplishing the objectives;
- o he should use questions to each member to further develop discussions, such as, "what if you had done. . . ;"
- o at the appropriate time, the instructor should summarize the debriefing.

With respect to evaluation and assessment, everything should be done to assure crews participating in LOFT that their jobs are not in jeopardy every time they enter the simulator for a LOFT session. We feel that while "satisfactory completion" is an inescapable aspect of LOFT, at the same time it is hard to imagine "unsatisfactory training." In some cases, LOFT may underscore areas which need extra attention, but often, even serious mistakes made during LOFT are obvious and need no further attention. Even a session which results in a "crash" may be a "satisfactorily completed" LOFT if the learning provided by the experience cannot be improved upon. However, in some cases, mistakes may indicate deficiencies that need additional work. The way that this is conveyed to a crew member is of vital importance and represents a challenge to the companies and their instructors.

During debriefing, both total crew performance and individual performances should be openly discussed and assessed by the instructor. Critical assessment of an individual must be mentioned in the presence of the full crew, but remedial details should be handled privately. Tact is required to avoid the appearance of satisfactory/unsatisfactory concepts.

LOFT is, first and foremost, a learning experience. This committee feels that the success and acceptance of a LOFT program depends in great measure on the planning and preparation for the program. Scenarios must accent realism. Instructors should be carefully selected and trained in the art of briefing, conducting the program, and debriefing.

Additional training for crew members, when indicated, must be handled in a low-key, non-threatening manner. If these factors are carefully handled, our committee feels that the evaluation/assessment chore will not necessarily detract from the pure training atmosphere, and will result in full acceptance.

Discussion

CAPTAIN CAVANAGH: The one area in which I am somewhat disturbed, Al, is the categoric reference to fact that there must be two instructors present. I do not frankly think that there has been enough research or enough work done at this stage to say categorically, two instructors must be present. I think that it is important that instructors be qualified and properly prepared to observe the performance of all crew members present. I will grant that if there are two present that it is perhaps easier than with one, but I do not think it would be appropriate at this point to say there must be two. Automatic management of scenarios, automatic introduction of malfunctions, and various schemes might be used to minimize instructor workload; and might permit one to do a better job than two instructors could do in a situation where some of these aids are not present. I would personally rather see a report and recommendations that ultimately recognized these as legitimate concerns and issues that should be resolved in some other way.

CAPTAIN FRINK: Dale, the committee discussed this at great length. The committee was unanimous in our resolve to find a way of presenting LOFT so that we could overcome the heart of the problem of acceptance of LOFT as pure training. We felt that the instructor's role was exceptionally important in this type of training versus other types of training that we do. He has a great deal of work to do. He has to do realistic communications, he has to monitor everything that goes on, to make sure that his work as conductor of the program is right on target; and to maintain the realism that is required. If you have a three-man crew with problems that are involving the engineer's panel, as well as the panels up front, and the need to monitor the specific actions of each crew member in addition to taking notes--we felt that note-taking was extremely important for the purposes of the debriefing--you have a situation involving a lot of work. After all these points were discussed, the committee recommended--nothing more--that if three people are part of a LOFT program, it would be better handled with two observing rather than one.

CAPTAIN CAVANAGH: I recognize that it is a debatable issue. I submit that we might all look at this in terms of the three versus two-man crew concept.

DR. LAUBER: I think that we will be getting back to this question once again when we get to the fourth working group report, instructor training and qualifications. That was one of the issues we put to them. I might say now that I hope during the course of the deliberations on that question, that the

conditions under which one instructor might be acceptable are discussed.

CAPTAIN FRINK: Our group did consider some other matters. We felt that the terminology questions still poses a problem here. Yesterday, we stated that the acronym LOFT should only be applied to recurrent training. However, as we tried to talk about the line environment in other aspects of training, we found we were always talking about LOFT. No matter how you try to get around it, all types of training that utilize line conditions are referred to as LOFT even though they come nowhere near meeting what we have under 120-35, as capital L-O-F-T. Nevertheless, line-oriented flight training is a very common thing, and it applies to many versions of line-oriented training. We, therefore, felt that we would be better served if we made LOFT an umbrella term, and we are recommending that. Further, we should preface LOFT by the specific use that is being applied-- Recurrent LOFT, Transition LOFT, Upgrade LOFT, Remedial LOFT, etc. LOFT, itself, is in such general use that the term itself cannot be eliminated. It is going to be used in these other ways no matter how much we try to stop it. We cannot stop it by having it apply only to recurrent training.